



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,573	05/17/2006	Eisaku Tanaka	10921.404USWO	5494
52835	7590	06/14/2007		
HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902				
			EXAMINER THOMAS, ERIC W	
			ART UNIT 2831	PAPER NUMBER
			MAIL DATE 06/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,573

Applicant(s)

TANAKA, EISAKU

Examiner

Eric Thomas

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/06.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

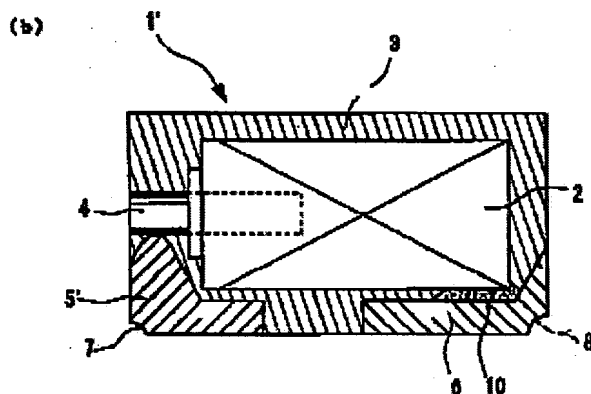
DETAILED ACTION***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Takeda (JP 2002-175952).

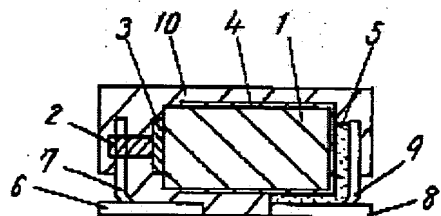


Regarding claim 1, Takeda discloses in fig. 7b, a surface-mount solid electrolytic capacitor comprising: a capacitor element (2); an anode lead terminal (7) made of a metal plate and electrically connected to an anode of the capacitor element; a cathode lead terminal made of a metal plate (6) and electrically connected to a cathode of the capacitor element; and a package made of synthetic resin (3) and hermetically sealing the capacitor element; the lead terminals being embedded in a bottom of the package with lower surfaces of the lead terminals exposed at a bottom surface of the package, wherein the anode lead terminal and the cathode lead terminal are respectively formed

Art Unit: 2831

with standing pieces at portions corresponding to side surfaces of the package, the standing pieces having respective outer surfaces exposed at the side surfaces of the package.

3. Claims 1-2, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2002043175 ('175).



【図5】

'175 discloses in fig. 2, a surface-mount solid electrolytic capacitor comprising: a capacitor element (1); an anode lead terminal (6,7) made of a metal plate and electrically connected to an anode of the capacitor element; a cathode lead terminal made of a metal plate (8,9) and electrically connected to a cathode of the capacitor element; and a package made of synthetic resin (10) and hermetically sealing the capacitor element; the lead terminals being embedded in a bottom of the package with lower surfaces of the lead terminals exposed at a bottom surface of the package, wherein the anode lead terminal and the cathode lead terminal are respectively formed with standing pieces (7, 9) at portions corresponding to side surfaces of the package, the standing pieces having respective outer surfaces exposed at the side surfaces of the package.

Regarding claim 2, '175 discloses each of the standing pieces is formed at part of the corresponding lead terminal in a width direction.

Regarding claim 4, '175 discloses a method for manufacturing a surface-mount solid electrolytic capacitor, the method comprising the steps of: preparing a lead frame by punching a metal plate, the lead frame including a pair of side frame portions integrally connected to each other by a tie bar, one of the side frame portions being formed with an anode lead terminal while the other one of the side frame portions being formed with a cathode lead terminal; forming a standing piece at each of the anode lead terminal and the cathode lead terminal of the lead frame without separating the anode lead terminal and the cathode lead terminal from the respective side frame portions; mounting a capacitor element onto the anode lead terminal and the cathode lead terminal so that an anode and a cathode of the capacitor element are electrically connected to the anode lead terminal and the cathode lead terminal, respectively; molding a synthetic resin into a package for hermetically sealing the capacitor element so that the lead terminals are embedded in the package with a surface of each of the lead terminals and an outer surface of each of the standing pieces exposed; and separating the anode lead terminal and the cathode lead terminal from the respective side frame portions.

Allowable Subject Matter

4. Claim 3 is allowed.
5. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or suggest (taken in combination with the other

Art Unit: 2831

claimed features) a method of for manufacturing a surface mount solid electrolytic capacitor wherein the method comprises the step of removably bonding a tape to the lead frame so that the tape crosses the anode lead terminal (claim 3).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4,488,204 – chip type capacitor.

6,870,727 – electrolytic capacitor having improved volumetric efficiency.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Thomas whose telephone number is 571-272-1985.


The examiner can normally be reached on Monday - Friday 6:30 AM - 3:45 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2831

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ewt



6-7-07

Eric Thomas
Primary Examiner
AU 2831